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ABSTRACT

After a review of Public Law 94-142 (Education for All Handicapped Children Act) and its implications, the author discusses the use of innovative educational technology in the individualized instruction of children with emotional and learning problems at the Orchard School (NY). Focusing on the requirements of an individualized education plan (IEP), the paper defines the IEP, and suggests the use of instructional technology in implementing the IEP. The author explains that the Orchard School is both a residential and community school serving 50 children (ages 7-14 years). The use of PLATO (Programmed Logic for Automatic Teaching Operations) is examined, and questions are posed relating to the program's relevancy and practicality. Among findings reported from initial research (to answer the questions) are that parents are enthused. Teachers are cited as having mixed feelings; some feel their jobs are threatened or that "big brother" has arrived, while others see the program as an great asset. (PHR)

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PROJECT ORPHEUS

COMPLYING WITH THE EDUCATION OF ALL HANDICAPPED CHILDREN ACT

AT THE ORCHARD SCHOOL

AN INNOVATIVE APPROACH UTILIZING EDUCATIONAL TECHNOLOGY

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In September of 1978, as schools throughout our Nation opened, a quiet revolution ended. This revolution represents a victory of many individuals, institutions, and organizations who fought for many years to gain equal educational rights for handicapped children. The beginning of the end occurred on November 29, 1975 when President Ford signed into law the Education for All Handicapped Children Act of 1975, Public Law 94-142. This law embodies the standards that have, over the past eight years, been laid down by courts, legislatures, and other policy bodies across our Country. This law, for the first time, makes the Right to an Education and the Right to an Appropriate Education for the Handicapped, Public Policy.

Currently the pro and con, strength and weakness of this comprehensive Act are being discussed across the country. There may certainly be attempts to modify, weaken, and in other ways change, this Act. Currently too much attention is being paid to the Act's pluses and minuses and insufficient emphasis placed on how to implement the provisions of this Act. If this major public policy fails, it will fail because of problems at the implementation level. The Right to an Education and the

Right to an Appropriate Education are essentially implementation problems now.

The rights of handicapped children to an equal and appropriate educational opportunity are on the line. The challenge is immense and the need for leadership desperate. The new law has been written to correct old and widespread injustices. Its primary goal is to give every child, including the most severely handicapped, the learning opportunities needed to become more self-sufficient and productive.

Currently, approximately half the nation's eight million handicapped children are denied the kind of education they should have to reach potential. As many as one million children are totally excluded from school. This legislation goes further than any law in history to reach these children and change the direction of their lives. As Abeson (1977) has noted, the intent of the Congress to insure that this Act will provide for the education of all children with handicaps is reflected in its statement of purpose:

> It is the purpose of this Act to assure that all handicapped children have available to them, within the time period specified, a free appropriate public education which emphasizes special education and related services designed to meet their unique needs.

> Under the new law, States will be eligible to participate in an on-going program of Federal aid to pay part of the additional cost of educating handicapped children...
>
> The ages to be served are three to eighteen by September 1978. Appropriate education is to be given at no additional expense to that child's parents or guardians. Furthermore, when it is determined that the child's appropriate education should be provided in a tuition based school program, the cost for receiving such services, including tuition, transportation, and room and board where necessary, must also not be automatically assigned to the parents.

To avoid the problems of inappropriate educational services being provided to children who have handicaps, the Congress included, as a major component of P.L. 94-142, a requirement that each child be provided with a written Individualized Education Program known as the IEP. The IEP, required for each handicapped child, is the essential building block for understanding and effectively complying with the Act.

THE IEP

A detailed definition describing the components of an IEP is included within the Act:

> A written statement for each handicapped child developed in any meeting by a representative of the local educational agency or an intermediate educational unit who shall be qualified to provide, or supervise the provision of, specially designed instruction to meet

> the unique needs of handicapped children, the teacher, the parents or guardians of such child, and, whenever appropriate, such child, which statement shall include (a) a statement of the present levels of educational performance of such child, (b) a statement of annual goals, including short-term instructional objectives, (c) a statement of the specific educational services to be provided to such child, and the extent to which such child will be able to participate in regular educational programs, (d) the projected date for initiation and anticipated duration of such services, and appropriate objective criteria and evaluation procedures and scheduling for determining, on at least an annual basis, whether instructional objectives are being achieved.

The IEP is a functional document that (a) details the child's level of performance, (b) evaluates this performance in terms of expectations and goals, and (c) establishes an implementation timetable.

IEP: AN AGREEMENT BETWEEN ADVOCATE AND TEACHER

The IEP requirement of P.L. 94-142 has received much attention in terms of its potential for achieving the goal of the Act--appropriately educating every handicapped child. Inclusion of the teacher, for example, in the development of the IEP is designed to insure that realistic teacher concerns and needs are considered as part of the IEP development process. It is appropriate that teachers have a major voice in program planning

since they have major responsibility for program provision. Similarly, parent participation is designed to insure that the extensive amounts of information parents possess about their children and their judgments as to the education program needed are considered.

Establishment of jointly determined expectations, in the form of goals and objectives, is required. With such specificity comes the basis for assessing a child's progress, so that inappropriate programs do not continue, and necessary program changes occur.

The importance of the total IEP provision cannot be overemphasized, nor can it be misinterpreted. It is an agreement between all parties and that, while it is not a contract, it is clearly a statement setting forth what will be provided to the child.

THE NEED FOR TECHNOLOGY

The details of an Individualized Educational Program make clear the complex planning and instructional tasks facing districts, schools, and teachers. This is not the first time that educators have faced the tasks of planning individually for child-

ren and keeping individual records of progress. Token reinforcement programs, the ill-fated Initial Teaching Alphabet programs, the ALPHA reading program, and countless other educational innovations designed to individualize and sequence instruction have for many years been part of American Education. All too frequently these programs falter and fall by the wayside. In our experience, and that of others (Blackhurst, 1965), successful educational innovation is a slow and complex process. Special educators, already faced with the responsibility of educating children whose learning abilities are affected, find it difficult to manage the data necessary to plan and implement an individual education program for each child. Some method has to be found to help teachers. Educational Technology offers us a possible way. Dean Jamison, Patrick Suppes, and Stuart Wells (1974) wrote, "The key to productivity improvement in every economic sector has been through the augmentation of human efforts by technology, and we see no reason to expect a different pattern in education" (p. 57).

What P.L. 94-142 requires, in the development and implementation of IEPs, fits the definition of Instructional Technology offered by the Commission on Instructional Technology: "a systematic way of designing, carrying out, and evaluating the total

process of learning and teaching in terms of specific objectives, based upon research in human and nonhuman resources to bring about more effective instruction" (Tickton, 1970, p. 21).

The stated requirement of P.L. 94-142 and the definition of Instructional Technology seem uniquely harmonious. Ergo! Why not use technology to hurdle the implementation barriers?

INNOVATIVE EDUCATIONAL TECHNOLOGY AT THE ORCHARD SCHOOL

The Orchard School provides the educational component of the Andrus Children's Home residential program for dependent, neglected, and emotionally disturbed youngsters. The Children's Home is a private, non-profit voluntary child care agency for boys and girls, licensed by the State of New York. The Home is located on 100 acres of rolling hills and partially wooded grounds in Southern Westchester County.

The Orchard School is a New York State approved school offering a therapeutic educational milieu to troubled and disruptive children, who may also have learning difficulties. The Orchard School serves both residential and community school children whose needs cannot be met in a traditional educational setting. The school has a capacity of 50 children ranging in age from 7 to 14.

The conceptual framework of the Orchard School Special Education Program is based on the development of a comprehensive, structured, sequenced, supportive curriculum designed to meet the individual and group needs of the children. The primary goal is to provide the children with activities and tasks which are both relevant and exciting, giving the children the opportunity to stabilize, be successful, increase significantly their academic skills and to return to community schools.

In the attempts of the education staff to individualize instruction and with the additional requirement to develop IEP's, a major difficulty encountered was the heavy burden of paperwork placed on the classroom teachers. In searching for a form of technology that would remove this burden and encourage teachers to interact with the technology, the researchers were led to PLATO.

PLATO, the acronym for Programmed Logic for Automatic Teaching Operation, has been under development since 1968 (Cleary et. al., 1976). The PLATO System has the advantages of utilizing the English language to program communication. It incorporates a T.V. type screen and a standard typewriter keyboard.

The PLATO System offers the most complete technological computer-assisted instruction package currently available. For use by PLATO, the research staff has:

1. Sequenced instructional objectives in Reading, Math, and Social Skills;
2. Categorized for utilization all of the available resources at the Orchard School;
3. Organized libraries of computer-assisted and regular instructional materials;
4. Begun to implement a system which can manage the total IEP process without the need for teachers to learn a computer programming language;
5. Organized a complete complement of administrative and recording services.

Specifically, the research staff is developing a teacher oriented system that will:

1. Keep accurate records on each individual child's needs and progress through an IEP;
2. Administer criterion reference tests to each child;
3. Manage social skills inventories, identify needs and planning strategies;

4. Analyze tasks and specify a sequence of specific objectives;
5. Guide the student through a series of instructional activities towards the achievement of specific objectives;
6. Tutor and offer drill work to individual students;
7. Re-test the child as often as the teacher directs and keep accurate longitudinal records of the child's progress in the achievement of specific educational objectives.

QUESTIONS RAISED

1. Can technology be utilized to provide appropriate education programs as specified in P.L. 94-142?
2. Can teachers with a minimum of special training be taught to utilize this technology?
3. What are the problems that develop when special education teachers utilize a computer managed instruction program (CMI) to implement Individual Education Plans?
4. Does a CMI program increase the learning rate of emotionally handicapped children?

RESEARCH FORMAT*

To answer some of these questions, a basic research program was undertaken in September 1978. The purpose of the research study currently underway is to determine the effect of computer managed and computer assisted instruction on a population of emotionally handicapped children.

The experimental variables are (1) mathematics achievement and (2) attention-to-task behavior.

The standard research procedures for selecting experimental and control groups were followed

The experimental variable, math achievement, is being measured by administering the Stanford Achievement Test and attention-to-task behavior is measured through observation.

The research hypothesis will be tested by applying appropriate statistical treatments.

During the second year of the project, 1979-80, reading achievement will be added to the experimental variables under study.

* A complete copy of the research proposal is available from the authors.

SOME INITIAL OBSERVATIONS

Orchard School teachers have had mixed reactions to Orpheus. Some see it as an unbelievable asset saving an untold amount of time which would have had to be spent recording, testing, and researching. This time is now better spent offering personal instruction. A few teachers see it as taking away their jobs, although in reality it has increased our staff's size. Some see it as big brother, all-knowing and -seeing, the coming of the inhuman element into our society. We could go on...

Parents, who must approve of their child's involvement, are invited to meet Orpheus first hand, talk to him, play with him. They are all very enthused and usually exclaim, "Is there room for me in this school?"

During the past three years, our students have come to us averaging a .7 rate of yearly achievement in both Math and Reading, that means 7 months of learning for each year spent in school. In that same timespan, the Orchard School program has increased rate of learning, as measured on Standardized Tests, to an average 1.5 years in Math and 1.6 years in Reading. A dramatic difference. It is expected then, using Orpheus, to have even more significant results, to return our children full-time to community schools more quickly and better prepared.

BIBLIOGRAPHY

1. Abeson, Alan; Zettel, Jeffrey. "The End of the Quiet Revolution: The Education for All Handicapped Children Act of 1975." Exceptional Children, October 1977, pp 115 - 128.

2. Blackhurst, A.E. "Technology in Special Education - Some Implications." Exceptional Children, 1965, pp 31, 449 - 456.

3. Cleary, Allen; Mayes, Terry; Packham, Derek. Educational Technology: Implications for Early and Special Education, London, John Wiley and Sons, 1976

4. Jamison, O.; Suppes, P.; and Wells, S. "The Effectiveness of Alternative Instructional Media: A Survey." Review of Educational Research, 1974, 44 (1), 1 - 67.

5. Tickton, S.G. (ed.) To Improve Learning: An Evaluation of Instructional Technology. New York, Bowker, 1970.